

SN 10/715,806
Docket No. S-100,641
In Response to Office Action dated July 11, 2006

JAN 09 2007

AMENDMENTS TO THE CLAIMS

Please amend the claims as follows:

Claims 1-18. (cancelled)

Claim 19. (previously amended) A solid composite comprising the reaction product of (i) colloidal nanocrystals including at least a portion of alkoxysilane-terminated groups thereon and (ii) a sol-gel precursor material.

Claim 20. (original) The solid composite of claim 19 wherein said colloidal nanocrystals have a volume loading of up to about 30 percent by volume within said solid composite.

Claim 21. (original) The solid composite of claim 19 wherein said sol-gel precursor material is selected from the group consisting of metal alkoxide compounds, metal halide compounds, and metal hydroxide compounds where the metal is selected from the group consisting of silicon, titanium, zirconium, aluminum, vanadium, iron, tin, tantalum, cerium, and chromium.

Claim 22. (original) The solid composite of claim 19 wherein said colloidal nanocrystals are selected from the group consisting of M_1X_1 , $M_1M_2X_1$, $M_1M_2M_3X_1$, $M_1X_1X_2$, $M_1M_2X_1X_2$, $M_1M_2M_3X_1X_2$, $M_1X_1X_2X_3$, $M_1M_2X_1X_2X_3$, and $M_1M_2M_3X_1X_2X_3$, where M_1 , M_2 , and M_3 are each selected from the group consisting of Zn, Cd, Hg, Al, Ga, In, Tl, Pb, Sn, Mg, Ca, Sr, Ba, mixtures and alloys thereof and X_1 , X_2 , and X_3 are each selected from the group consisting of S, Se, Te, As, Sb, N, P, mixtures and alloys thereof, Si, Ge, Au, Ag, Co, Fe, Ni, Cu, Mn and alloys of Au, Ag, Co, Fe, Ni, Cu, Mn or alloy combinations thereof.

Claims 23-26. (cancelled)